

# Ceci est le fichier de test de xstring

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Attention : ce fichier `test.etex.tex` produit une sortie quasiment identique au fichier `test.latex.tex`, mais il doit se lancer avec Plain  $\varepsilon$ -TEX. Pour des raison d'encodage, contrairement au fichier `test.latex.tex`, les arguments des macros présentées ici ne contiennent pas de lettres accentuées.

Toutes les situations ne sont pas envisagées, mais au moins un grand nombre ! Les macros sont examinées dans l'ordre logique du code.

Lorsque le résultat contient des espaces ou peut conduire à des doutes, il sera entouré de "–", étant entendu que "–" est une chaîne vide.

## Le mode `\fullexpandarg`

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### Le test `IfSubStr`

```
\IfSubStr{abcdef}{cd}{vrai}{faux} vrai
\IfSubStr{a b c d}{b c}{vrai}{faux} vrai
\IfSubStr{a b c d}{bc}{vrai}{faux} faux
\IfSubStr{abcdef}{}{vrai}{faux} faux
\IfSubStr{a}{a}{vrai}{faux} vrai
\IfSubStr{aaaa}{aa}{vrai}{faux} vrai
\IfSubStr{a}{aa}{vrai}{faux} faux
\IfSubStr{a}{}{vrai}{faux} faux
\IfSubStr{}{a}{vrai}{faux} faux
\IfSubStr{}{}{vrai}{faux} faux
\IfSubStr[2]{abaca}{a}{vrai}{faux} vrai
\IfSubStr[3]{abaca}{a}{vrai}{faux} vrai
\IfSubStr[4]{abaca}{a}{vrai}{faux} faux
\IfSubStr[-2]{abaca}{a}{vrai}{faux} faux
```

### Le test `IfBeginWith`

```
\IfBeginWith{abcdef}{adc}{vrai}{faux} faux
\IfBeginWith{abcdef}{abcd}{vrai}{faux} vrai
\IfBeginWith{ a b c }{ a}{vrai}{faux} vrai
\IfBeginWith{a b c d}{ab}{vrai}{faux} faux
\IfBeginWith{a}{a}{vrai}{faux} vrai
\IfBeginWith{a}{aa}{vrai}{faux} faux
\IfBeginWith{a}{}{vrai}{faux} faux
\IfBeginWith{}{a}{vrai}{faux} faux
\IfBeginWith{}{}{vrai}{faux} faux
```

### Le test `IfEndWith`

```
\IfEndWith{abcdef}{ab}{vrai}{faux} faux
\IfEndWith{abcdef}{f}{vrai}{faux} vrai
\IfEndWith{ a b c }{c}{vrai}{faux} faux
\IfEndWith{ a b c }{}{vrai}{faux} vrai
\IfEndWith{a}{a}{vrai}{faux} vrai
\IfEndWith{a}{aa}{vrai}{faux} faux
\IfEndWith{a}{}{vrai}{faux} faux
\IfEndWith{}{a}{vrai}{faux} faux
\IfEndWith{}{}{vrai}{faux} faux
```

## Le test IfSubStrBefore

```
\IfSubStrBefore{abcdef}{b}{e}{vrai}{faux}    vrai
\IfSubStrBefore{abcdef}{e}{c}{vrai}{faux}    faux
\IfSubStrBefore{ a b c }{ }{b}{vrai}{faux}    faux
\IfSubStrBefore{ a b c }{ b}{c}{vrai}{faux}    vrai
\IfSubStrBefore{abcdef}{z}{a}{vrai}{faux}    faux
\IfSubStrBefore{abcdef}{y}{z}{vrai}{faux}    faux
\IfSubStrBefore{abcdef}{a}{z}{vrai}{faux}    faux
\IfSubStrBefore{aaa}{a}{aa}{vrai}{faux}    faux
\IfSubStrBefore{abcdef}{a}{a}{vrai}{faux}    faux
\IfSubStrBefore{a}{a}{a}{vrai}{faux}    faux
\IfSubStrBefore{}{a}{b}{vrai}{faux}    faux
\IfSubStrBefore{a}{}{a}{vrai}{faux}    faux
\IfSubStrBefore{}{a}{a}{vrai}{faux}    faux
\IfSubStrBefore{}{}{}{vrai}{faux}    faux
\IfSubStrBefore[1,1]{abacada}{d}{a}{vrai}{faux}    faux
\IfSubStrBefore[1,2]{abacada}{d}{a}{vrai}{faux}    faux
\IfSubStrBefore[1,3]{abacada}{d}{a}{vrai}{faux}    faux
\IfSubStrBefore[1,4]{abacada}{d}{a}{vrai}{faux}    vrai
\IfSubStrBefore[2,1]{maman papa}{a}{p}{vrai}{faux}    vrai
\IfSubStrBefore[2,2]{maman papa}{a}{p}{vrai}{faux}    vrai
\IfSubStrBefore[4,2]{maman papa}{a}{p}{vrai}{faux}    faux
```

## Le test IfStrBehind

```
\IfSubStrBehind{abcdef}{b}{e}{vrai}{faux}    faux
\IfSubStrBehind{abcdef}{e}{c}{vrai}{faux}    vrai
\IfSubStrBehind{ a b c }{ }{b}{vrai}{faux}    faux
\IfSubStrBehind{ a b c }{ c}{ a}{vrai}{faux}    faux
\IfSubStrBehind{abcdef}{z}{a}{vrai}{faux}    faux
\IfSubStrBehind{abcdef}{y}{z}{vrai}{faux}    faux
\IfSubStrBehind{abcdef}{a}{z}{vrai}{faux}    faux
\IfSubStrBehind{aaa}{a}{aa}{vrai}{faux}    faux
\IfSubStrBehind{abcdef}{a}{a}{vrai}{faux}    faux
\IfSubStrBehind{a}{a}{a}{vrai}{faux}    faux
\IfSubStrBehind{}{a}{b}{vrai}{faux}    faux
\IfSubStrBehind{a}{}{a}{vrai}{faux}    faux
\IfSubStrBehind{}{a}{a}{vrai}{faux}    faux
\IfSubStrBehind{}{}{}{vrai}{faux}    faux
\IfSubStrBehind[1,1]{abacada}{c}{a}{vrai}{faux}    faux
\IfSubStrBehind[1,2]{abacada}{c}{a}{vrai}{faux}    vrai
\IfSubStrBehind[1,3]{abacada}{c}{a}{vrai}{faux}    faux
\IfSubStrBehind[2,1]{maman papa}{a}{p}{vrai}{faux}    faux
\IfSubStrBehind[3,1]{maman papa}{a}{p}{vrai}{faux}    vrai
\IfSubStrBehind[3,2]{maman papa}{a}{p}{vrai}{faux}    faux
\IfSubStrBehind[4,2]{maman papa}{a}{p}{vrai}{faux}    vrai
```

## Le test IfInteger

```
\IfInteger{156}{vrai}{faux}    faux
\IfInteger{1.6}{vrai}{faux}    faux
\IfInteger{7a5}{vrai}{faux}    faux
\IfInteger{+9}{vrai}{faux}    faux
\IfInteger{-15}{vrai}{faux}    faux
\IfInteger{0}{vrai}{faux}    faux
\IfInteger{-1,2}{vrai}{faux}    faux
```

```

\IfInteger{1.}{vrai}{faux} faux
\IfInteger{-00}{vrai}{faux} faux
\IfInteger{+}{vrai}{faux} faux
\IfInteger{-}{vrai}{faux} faux
\IfInteger{.}{vrai}{faux} faux
\IfInteger{}{vrai}{faux} faux

```

## Le test IfDecimal

```

\IfDecimal{6}{vrai}{faux} faux
\IfDecimal{-78}{vrai}{faux} faux
\IfDecimal{3.14}{vrai}{faux} faux
\IfDecimal{3,14}{vrai}{faux} faux
\IfDecimal{1..5}{vrai}{faux} faux
\IfDecimal{-9.8}{vrai}{faux} faux
\IfDecimal{+9.8}{vrai}{faux} faux
\IfDecimal{-9,8}{vrai}{faux} faux
\IfDecimal{+9,8}{vrai}{faux} faux
\IfDecimal{+6.7.}{vrai}{faux} faux
\IfDecimal{.5}{vrai}{faux} faux
\IfDecimal{1.}{vrai}{faux} faux
\IfDecimal{-.99}{vrai}{faux} faux
\IfDecimal{-5.}{vrai}{faux} faux
\IfDecimal{5a9.}{vrai}{faux} faux
\IfDecimal{+}{vrai}{faux} faux
\IfDecimal{-}{vrai}{faux} faux
\IfDecimal{.}{vrai}{faux} faux
\IfDecimal{}{vrai}{faux} faux

```

## Le test IfStrEq

```

\IfStrEq{abcdef}{abcdef}{vrai}{faux} vrai
\IfStrEq{a b c}{a b c}{vrai}{faux} vrai
\IfStrEq{abcd}{abc}{vrai}{faux} faux
\IfStrEq{aab}{ab}{vrai}{faux} faux
\IfStrEq{aab}{aa}{vrai}{faux} faux
\IfStrEq{1.2}{1.20}{vrai}{faux} faux
\IfStrEq{3,4}{3.4}{vrai}{faux} faux
\IfStrEq{ }{ }{vrai}{faux} vrai
\IfStrEq{}{a}{vrai}{faux} faux
\IfStrEq{a}{}{vrai}{faux} faux
\IfStrEq{}{}{vrai}{faux} vrai

```

## Le test IfEq

```

\IfEq{abcdef}{abcdef}{vrai}{faux} vrai
\IfEq{a b c}{a b c}{vrai}{faux} vrai
\IfEq{abcd}{abc}{vrai}{faux} faux
\IfEq{aab}{ab}{vrai}{faux} faux
\IfEq{aab}{aa}{vrai}{faux} faux
\IfEq{1.2}{1.20}{vrai}{faux} faux
\IfEq{+1.0000}{1}{vrai}{faux} faux
\IfEq{-10}{10}{vrai}{faux} faux
\IfEq{1,2}{1.2}{vrai}{faux} faux
\IfEq{.5}{0.5}{vrai}{faux} faux
\IfEq{,5}{0,5}{vrai}{faux} faux
\IfEq{10}{dix}{vrai}{faux} faux

```

```

\IfEq{123}{1a3}{vrai}{faux} faux
\IfEq{0}{}{vrai}{faux} faux
\IfEq{++10}{+10}{vrai}{faux} faux
\IfEq{--10}{+10}{vrai}{faux} faux
\IfEq{a}{}{vrai}{faux} faux
\IfEq{}{a}{vrai}{faux} faux
\IfEq{}{}{vrai}{faux} vrai

```

## La macro StrBefore

```

\StrBefore{abcdef}{e} abc
\StrBefore{abcdef}{a} --
\StrBefore{abcdef}{z} --
\StrBefore{a b c d}{c} -a b -
\StrBefore{a b c d}{ } -a-
\StrBefore[2]{a b c d}{ } -a b-
\StrBefore[3]{a b c d}{ } -a b c-
\StrBefore[9]{a b c d}{ } --
\StrBefore[-7]{a b c d}{ } --
\StrBefore{abcdef}{Z} --
\StrBefore[1]{aaaaaa}{aa} --
\StrBefore[2]{aaaaaa}{aa} aa
\StrBefore[3]{aaaaaa}{aa} aaaa
\StrBefore[4]{aaaaaa}{aa} --
\StrBefore{a}{} --
\StrBefore{}{a} --
\StrBefore{}{} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrBefore{abcdef}{e}[\aa]\aa abc
\StrBefore{abcdef}{a}[\aa]\aa --
\StrBefore{abcdef}{z}[\aa]\aa --
\StrBefore{a b c d}{c}[\aa]\aa -a b -
\StrBefore{a b c d}{ }[\aa]\aa -a-
\StrBefore[2]{a b c d}{ }[\aa]\aa -a b-
\StrBefore[3]{a b c d}{ }[\aa]\aa -a b c-
\StrBefore[9]{a b c d}{ }[\aa]\aa --
\StrBefore[-7]{a b c d}{ }[\aa]\aa --
\StrBefore{abcdef}{Z}[\aa]\aa --
\StrBefore[1]{aaaaaa}{aa}[\aa]\aa --
\StrBefore[2]{aaaaaa}{aa}[\aa]\aa aa
\StrBefore[3]{aaaaaa}{aa}[\aa]\aa aaaa
\StrBefore[4]{aaaaaa}{aa}[\aa]\aa --
\StrBefore{a}{}[\aa]\aa --
\StrBefore{}{a}[\aa]\aa --
\StrBefore{}{}[\aa]\aa --

```

## La macro StrBehind

```

\StrBehind{abcdef}{e} def
\StrBehind{abcdef}{a} -bcdef-
\StrBehind{abcdef}{z} --
\StrBehind{a b c d}{c} - d-
\StrBehind{a b c d}{ } -b c d-
\StrBehind[2]{a b c d}{ } -c d-
\StrBehind[3]{a b c d}{ } -d-

```

```

\StrBehind[9]{a b c d}{ } --
\StrBehind[-7]{a b c d}{ } --
\StrBehind{abcdef}{Z} --
\StrBehind[1]{aaaaaa}{aa} aaaa
\StrBehind[2]{aaaaaa}{aa} aa
\StrBehind[3]{aaaaaa}{aa} --
\StrBehind[4]{aaaaaa}{aa} --
\StrBehind{a}{ } --
\StrBehind{}{a} --
\StrBehind{}{ } --

```

Mêmes exemples avec l'argument optionnel :

```

\StrBehind{abcdef}{e}[\aa]\aa def
\StrBehind{abcdef}{a}[\aa]\aa -bcdef-
\StrBehind{abcdef}{z}[\aa]\aa --
\StrBehind{a b c d}{c}[\aa]\aa - d-
\StrBehind{a b c d}{ }[\aa]\aa -b c d-
\StrBehind[2]{a b c d}{ }[\aa]\aa -c d-
\StrBehind[3]{a b c d}{ }[\aa]\aa -d-
\StrBehind[9]{a b c d}{ }[\aa]\aa --
\StrBehind[-7]{a b c d}{ }[\aa]\aa --
\StrBehind{abcdef}{Z}[\aa]\aa --
\StrBehind[1]{aaaaaa}{aa}[\aa]\aa aaaa
\StrBehind[2]{aaaaaa}{aa}[\aa]\aa aa
\StrBehind[3]{aaaaaa}{aa}[\aa]\aa --
\StrBehind[4]{aaaaaa}{aa}[\aa]\aa --
\StrBehind{a}{ }[\aa]\aa --
\StrBehind{}{a}[\aa]\aa --
\StrBehind{}{ }[\aa]\aa --

```

## La macro StrBetween

```

\StrBetween{abcdef}{b}{e} cd
\StrBetween{aZaaaaZa}{Z}{Z} --
\StrBetween[1,2]{aZaaaaZa}{Z}{Z} -aaaa-
\StrBetween{a b c d}{a}{c} - b -
\StrBetween{a b c d}{a }{ d} -b c-
\StrBetween{abcdef}{a}{Z} --
\StrBetween{abcdef}{Y}{Z} --
\StrBetween[2,5]{aAaBaCaDa}{a}{a} -BaCaD-
\StrBetween[4,1]{ab1ab2ab3ab4ab}{b}{a} --
\StrBetween[3,4]{a b c d e f}{ }{ } -d-
\StrBetween[1,3]{aaaaaa}{aa}{aa} aa
\StrBetween{abcdef}{a}{ } --
\StrBetween{abcdef}{ }{f} --
\StrBetween{}{a}{b} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrBetween{abcdef}{b}{e}[\aa]\aa cd
\StrBetween{aZaaaaZa}{Z}{Z}[\aa]\aa --
\StrBetween[1,2]{aZaaaaZa}{Z}{Z}[\aa]\aa -aaaa-
\StrBetween{a b c d}{a}{c}[\aa]\aa - b -
\StrBetween{a b c d}{a }{ d}[\aa]\aa -b c-
\StrBetween{abcdef}{a}{Z}[\aa]\aa --
\StrBetween{abcdef}{Y}{Z}[\aa]\aa --
\StrBetween[2,5]{aAaBaCaDa}{a}{a}[\aa]\aa -BaCaD-

```

```

\StrBetween[4,1]{ab1ab2ab3ab4ab}{b}{a}[\aa]\aa --
\StrBetween[3,4]{a b c d e f}{ }{ }[\aa]\aa -d-
\StrBetween[1,3]{aaaaaa}{aa}{aa}[\aa]\aa aa
\StrBetween{abcdef}{a}{ }[\aa]\aa --
\StrBetween{abcdef}{ }{f}[\aa]\aa --
\StrBetween{}{a}{b}[\aa]\aa --

```

## La macro StrSubstitute

```

\StrSubstitute{abcdef}{c}{ZZ} abZZdef
\StrSubstitute{aaaaaaa}{aa}{w} wwwa
\StrSubstitute[0]{abacada}{a}{.} .b.c.d.
\StrSubstitute[1]{abacada}{a}{.} .bacada
\StrSubstitute[2]{abacada}{a}{.} .b.cada
\StrSubstitute[3]{abacada}{a}{.} .b.c.da
\StrSubstitute[4]{abacada}{a}{.} .b.c.d.
\StrSubstitute[5]{abacada}{a}{.} .b.c.d.
\StrSubstitute{a b c d e}{ }{,} a,b,c,d,e
\StrSubstitute{a b c d e}{ }{ } abcde
\StrSubstitute{abcdef}{ }{A} abcdef
\StrSubstitute{abcdef}{ }{ } abcdef
\StrSubstitute{}{a}{b} --
\StrSubstitute{}{ }{ } --

```

Mêmes exemples avec l'argument optionnel :

```

\StrSubstitute{abcdef}{c}{ZZ}[\aa]\aa abZZdef
\StrSubstitute{aaaaaaa}{aa}{w}[\aa]\aa wwwa
\StrSubstitute[0]{abacada}{a}{.}[\aa]\aa .b.c.d.
\StrSubstitute[1]{abacada}{a}{.}[\aa]\aa .bacada
\StrSubstitute[2]{abacada}{a}{.}[\aa]\aa .b.cada
\StrSubstitute[3]{abacada}{a}{.}[\aa]\aa .b.c.da
\StrSubstitute[4]{abacada}{a}{.}[\aa]\aa .b.c.d.
\StrSubstitute[5]{abacada}{a}{.}[\aa]\aa .b.c.d.
\StrSubstitute{a b c d e}{ }{,}[\aa]\aa a,b,c,d,e
\StrSubstitute{a b c d e}{ }{ }[\aa]\aa abcde
\StrSubstitute{abcdef}{ }{A}[\aa]\aa abcdef
\StrSubstitute{abcdef}{ }{ }[\aa]\aa abcdef
\StrSubstitute{}{a}{b}[\aa]\aa --
\StrSubstitute{}{ }{ }[\aa]\aa --

```

## La macro StrDel

```

\StrDel{a1a2a3a4}{a} 1234
\StrDel[2]{a1a2a3a4}{a} 12a3a4
\StrDel[-2]{a1a2a3a4}{a} 1234
\StrDel[10]{a1a2a3a4}{a} 1234
\StrDel[3]{a b c d e}{a} b c d e

```

Mêmes exemples avec l'argument optionnel :

```

\StrDel{a1a2a3a4}{a}[\aa]\aa 1234
\StrDel[2]{a1a2a3a4}{a}[\aa]\aa 12a3a4
\StrDel[-2]{a1a2a3a4}{a}[\aa]\aa 1234
\StrDel[10]{a1a2a3a4}{a}[\aa]\aa 1234
\StrDel[3]{a b c d e}{a}[\aa]\aa b c d e

```

## La macro StrLen

```

\StrLen{abcdef} 6

```

```

\StrLen{a b c} 5
\StrLen{ a b c } 7
\StrLen{a} 1
\StrLen{} 0

```

Mêmes exemples avec l'argument optionnel :

```

\StrLen{abcdef}[\aa]\aa 6
\StrLen{a b c}[\aa]\aa 5
\StrLen{ a b c }[\aa]\aa 7
\StrLen{a}[\aa]\aa 1
\StrLen{}[\aa]\aa 0

```

## la macro StrMid

```

\StrMid{abcdef}{2}{5} bcde
\StrMid{a b c d}{2}{6} - b c -
\StrMid{abcdef}{4}{2} --
\StrMid{abcdef}{-4}{3} abc
\StrMid{abcdef}{-4}{-1} --
\StrMid{abcdef}{-4}{20} abcdef
\StrMid{abcdef}{8}{10} --
\StrMid{abcdef}{2}{2} b
\StrMid{aaaaaa}{3}{6} aaaa
\StrMid{}{4}{5} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrMid{abcdef}{2}{5}[\aa]\aa bcde
\StrMid{a b c d}{2}{6}[\aa]\aa - b c -
\StrMid{abcdef}{4}{2}[\aa]\aa --
\StrMid{abcdef}{-4}{3}[\aa]\aa abc
\StrMid{abcdef}{-4}{-1}[\aa]\aa --
\StrMid{abcdef}{-4}{20}[\aa]\aa abcdef
\StrMid{abcdef}{8}{10}[\aa]\aa --
\StrMid{abcdef}{2}{2}[\aa]\aa b
\StrMid{aaaaaa}{3}{6}[\aa]\aa aaaa
\StrMid{}{4}{5}[\aa]\aa --

```

## La macro StrGobbleLeft

```

\StrGobbleLeft{abcdef}{3} def
\StrGobbleLeft{a b c d}{3} - c d-
\StrGobbleLeft{abcdef}{-3} abcdef
\StrGobbleLeft{abcdef}{9} --
\StrGobbleLeft{aaaaa}{4} a
\StrGobbleLeft{}{2} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrGobbleLeft{abcdef}{3}[\aa]\aa def
\StrGobbleLeft{a b c d}{3}[\aa]\aa - c d-
\StrGobbleLeft{abcdef}{-3}[\aa]\aa abcdef
\StrGobbleLeft{abcdef}{9}[\aa]\aa --
\StrGobbleLeft{aaaaa}{4}[\aa]\aa a
\StrGobbleLeft{}{2}[\aa]\aa --

```

## La macro StrGobbleRight

```

\StrGobbleRight{abcdef}{3} abc
\StrGobbleRight{a b c d}{3} -a b -
\StrGobbleRight{abcdef}{-3} abcdef

```

```

\StrGobbleRight{abcdef}{9} --
\StrGobbleRight{aaaaa}{4} a
\StrGobbleRight{}{2} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrGobbleRight{abcdef}{3}[\aa]\aa abc
\StrGobbleRight{a b c d}{3}[\aa]\aa -a b -
\StrGobbleRight{abcdef}{-3}[\aa]\aa abcdef
\StrGobbleRight{abcdef}{9}[\aa]\aa --
\StrGobbleRight{aaaaa}{4}[\aa]\aa a
\StrGobbleRight{}{2}[\aa]\aa --

```

## La macro StrLeft

```

\StrLeft{abcdef}{3} abc
\StrLeft{a b c d}{3} -a b-
\StrLeft{abcdef}{-3} --
\StrLeft{abcdef}{9} -abcdef-
\StrLeft{aaaaa}{4} aaaa
\StrLeft{}{2} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrLeft{abcdef}{3}[\aa]\aa abc
\StrLeft{a b c d}{3}[\aa]\aa -a b-
\StrLeft{abcdef}{-3}[\aa]\aa --
\StrLeft{abcdef}{9}[\aa]\aa -abcdef-
\StrLeft{aaaaa}{4}[\aa]\aa aaaa
\StrLeft{}{2}[\aa]\aa --

```

## La macro StrRight

```

\StrRight{abcdef}{3} def
\StrRight{a b c d}{3} -c d-
\StrRight{abcdef}{-3} --
\StrRight{abcdef}{9} -abcdef-
\StrRight{aaaaa}{4} aaaa
\StrRight{}{2} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrRight{abcdef}{3}[\aa]\aa def
\StrRight{a b c d}{3}[\aa]\aa -c d-
\StrRight{abcdef}{-3}[\aa]\aa --
\StrRight{abcdef}{9}[\aa]\aa -abcdef-
\StrRight{aaaaa}{4}[\aa]\aa aaaa
\StrRight{}{2}[\aa]\aa --

```

## la macro StrChar

```

\StrChar{abcdef}{5} e
\StrChar{a b c d}{4} - -
\StrChar{a b c d}{7} d
\StrChar{abcdef}{10} --
\StrChar{abcdef}{-5} --
\StrChar{}{3} --

```

Mêmes exemples avec l'argument optionnel :

```

\StrChar{abcdef}{5}[\aa]\aa e
\StrChar{a b c d}{4}[\aa]\aa - -
\StrChar{a b c d}{7}[\aa]\aa d

```



```

\StrChar{abcdef}{10}[\aa]\aa --
\StrChar{abcdef}{-5}[\aa]\aa --
\StrChar{}{3}[\aa]\aa --

```

## La macro StrCount

```

\StrCount{abcdef}{d} 1
\StrCount{a b c d}{ } 3
\StrCount{aaaaaa}{aa} 3
\StrCount{abcdef}{Z} 0
\StrCount{abcdef}{ } 0
\StrCount{}{a} 0
\StrCount{}{ } 0

```

Mêmes exemples avec l'argument optionnel :

```

\StrCount{abcdef}{d}[\aa]\aa 1
\StrCount{a b c d}{ }[\aa]\aa 3
\StrCount{aaaaaa}{aa}[\aa]\aa 3
\StrCount{abcdef}{Z}[\aa]\aa 0
\StrCount{abcdef}{ }[\aa]\aa 0
\StrCount{}{a}[\aa]\aa 0
\StrCount{}{ }[\aa]\aa 0

```

## La macro StrPosition

```

\StrPosition{abcdef}{c} 3
\StrPosition{abcdef}{Z} 0
\StrPosition{a b c d}{ } 2
\StrPosition[3]{a b c d}{ } 6
\StrPosition[8]{a b c d}{ } 0
\StrPosition{aaaaaa}{aa} 1
\StrPosition[2]{aaaaaa}{aa} 3
\StrPosition[3]{aaaaaa}{aa} 5
\StrPosition{abcdef}{ } 0
\StrPosition{}{a} 0
\StrPosition{}{ } 0

```

Mêmes exemples avec l'argument optionnel :

```

\StrPosition{abcdef}{c}[\aa]\aa 3
\StrPosition{abcdef}{Z}[\aa]\aa 0
\StrPosition{a b c d}{ }[\aa]\aa 2
\StrPosition[3]{a b c d}{ }[\aa]\aa 6
\StrPosition[8]{a b c d}{ }[\aa]\aa 0
\StrPosition{aaaaaa}{aa}[\aa]\aa 1
\StrPosition[2]{aaaaaa}{aa}[\aa]\aa 3
\StrPosition[3]{aaaaaa}{aa}[\aa]\aa 5
\StrPosition{abcdef}{ }[\aa]\aa 0
\StrPosition{}{a}[\aa]\aa 0
\StrPosition{}{ }[\aa]\aa 0

```

## La macro StrCompare

La tolérance normale :

```

\StrCompare{abcdefghij}{abc} 0
\StrCompare{A}{A} 0
\StrCompare{abcdef}{a bd} 2
\StrCompare{ }{ } 0
\StrCompare{}{abcd} 0

```

```

\StrCompare{abcd}{ } 0
\StrCompare{123456}{1234} 0
\StrCompare{a b c d}{a bcd} 4
\StrCompare{ }{ } 0
\StrCompare{eee}{eeee} 0
\StrCompare{eeee}{eee} 0
\StrCompare{totutu}{tututu} 2
\StrCompare{abcd}{abyz} 3

```

Mêmes exemples avec l'argument optionnel :

```

\StrCompare{abcdefghij}{abc}[\aa]\aa 0
\StrCompare{A}{A}[\aa]\aa 0
\StrCompare{abcdef}{a bd}[\aa]\aa 2
\StrCompare{ }{ }[\aa]\aa 0
\StrCompare{}{abcd}[\aa]\aa 0
\StrCompare{abcd}{}[\aa]\aa 0
\StrCompare{123456}{1234}[\aa]\aa 0
\StrCompare{a b c d}{a bcd}[\aa]\aa 4
\StrCompare{}{ }[\aa]\aa 0
\StrCompare{eee}{eeee}[\aa]\aa 0
\StrCompare{eeee}{eee}[\aa]\aa 0
\StrCompare{totutu}{tututu}[\aa]\aa 2
\StrCompare{abcd}{abyz}[\aa]\aa 3

```

La tolérance stricte :

```

\StrCompare{abcdefghij}{abc} 4
\StrCompare{A}{A} 0
\StrCompare{abcdef}{a bd} 2
\StrCompare{ }{ } 0
\StrCompare{}{abcd} 1
\StrCompare{abcd}{} 1
\StrCompare{123456}{1234} 5
\StrCompare{a b c d}{a bcd} 4
\StrCompare{}{ } 0
\StrCompare{eee}{eeee} 4
\StrCompare{eeee}{eee} 4
\StrCompare{totutu}{tututu} 2
\StrCompare{abcd}{abyz} 3

```

Mêmes exemples avec l'argument optionnel :

```

\StrCompare{abcdefghij}{abc}[\aa]\aa 4
\StrCompare{A}{A}[\aa]\aa 0
\StrCompare{abcdef}{a bd}[\aa]\aa 2
\StrCompare{ }{ }[\aa]\aa 0
\StrCompare{}{abcd}[\aa]\aa 1
\StrCompare{abcd}{}[\aa]\aa 1
\StrCompare{123456}{1234}[\aa]\aa 5
\StrCompare{a b c d}{a bcd}[\aa]\aa 4
\StrCompare{}{ }[\aa]\aa 0
\StrCompare{eee}{eeee}[\aa]\aa 4
\StrCompare{eeee}{eee}[\aa]\aa 4
\StrCompare{totutu}{tututu}[\aa]\aa 2
\StrCompare{abcd}{abyz}[\aa]\aa 3

```

# Le mode \noexpandarg

Dans toute la suite sauf si c'est précisé, la commande \noexpandarg est activée.

## Le test IfSubStr

```

\begin{document}
\begin{noexploregroups}
\IfSubStr{1$2$\a{34}\bc5}{2}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{34}{vrai}{faux} faux
\IfSubStr{1$2$\a{34}\bc5}{{34}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{b}}{vrai}{faux} faux
\IfSubStr{1$2$\a{34}\bc5}{{bc}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{bc5}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{bc{5}}}{vrai}{faux} faux
\IfSubStr[1]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[2]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[3]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} faux
\IfSubStr[4]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} faux
\end{noexploregroups}
\begin{exploregroups}
\IfSubStr{1$2$\a{34}\bc5}{2}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{34}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{34}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{b}}{vrai}{faux} faux
\IfSubStr{1$2$\a{34}\bc5}{{bc}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{bc5}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{bc{5}}}{vrai}{faux} faux
\IfSubStr[1]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[2]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[3]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[4]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\end{exploregroups}
\end{document}
```

## Le test IfBeginWith

Les tests doivent donner des résultats identiques ci-dessous puisque \IfBeginWith est indifférent au mode d'exploration des groupes !

```

\begin{document}
\begin{noexploregroups}
\IfBeginWith{{\a}123\b456}{{a}}{vrai}{faux} faux
\IfBeginWith{{\a}123\b456}{{a}}{vrai}{faux} vrai
\IfBeginWith{{\a1}\b\c\d}{{a}}{vrai}{faux} faux
\IfBeginWith{{1}23456}{12}{vrai}{faux} faux
\IfBeginWith{{1}23456}{1}{vrai}{faux} faux
\IfBeginWith{{1}23456}{{1}2}{vrai}{faux} vrai
\end{noexploregroups}
\begin{exploregroups}
\IfBeginWith{{\a}123\b456}{{a}}{vrai}{faux} faux
\IfBeginWith{{\a}123\b456}{{a}}{vrai}{faux} vrai
\IfBeginWith{{\a1}\b\c\d}{{a}}{vrai}{faux} faux
\IfBeginWith{{1}23456}{12}{vrai}{faux} faux
\IfBeginWith{{1}23456}{1}{vrai}{faux} faux
\IfBeginWith{{1}23456}{{1}2}{vrai}{faux} vrai
\end{exploregroups}
\end{document}
```

## Le test IfEndWith

Les tests doivent donner des résultats identiques ci-dessous puisque \IfEndWith est indifférent au mode d'exploration des groupes !

```

\begin{document}
\begin{noexploregroups}
```

```

\IfEndWith{\a1\b2{\c3}}{\c3}{vrai}{faux} faux
\IfEndWith{\a1\b2{\c3}}{\c3}{vrai}{faux} vrai
\IfEndWith{\a1\b2{\c3}}{3}{vrai}{faux} faux
\IfEndWith{12345{6}}{56}{vrai}{faux} faux
\IfEndWith{12345{6}}{6}{vrai}{faux} faux
\IfEndWith{12345{6}}{5{6}}{vrai}{faux} vrai
\exploregroups
\IfEndWith{\a1\b2{\c3}}{\c3}{vrai}{faux} faux
\IfEndWith{\a1\b2{\c3}}{\c3}{vrai}{faux} vrai
\IfEndWith{\a1\b2{\c3}}{3}{vrai}{faux} faux
\IfEndWith{12345{6}}{56}{vrai}{faux} faux
\IfEndWith{12345{6}}{6}{vrai}{faux} faux
\IfEndWith{12345{6}}{5{6}}{vrai}{faux} vrai

```

## Le test IfSubStrBefore

```

\noexploregroups
\IfSubStrBefore[1,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBefore[2,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} faux
\IfSubStrBefore[2,3]{\a1\a2\a3\b1\b2\b3}{\a}{\b}{vrai}{faux} vrai
\IfSubStrBefore[1,1]{\a1{\a2\a3\b1}\b2\b3}{2}{\b}{vrai}{faux} faux
\IfSubStrBefore[1,2]{\a1{\a2\a3\b1}\b2\b3}{3}{\b}{vrai}{faux} faux
\exploregroups
\IfSubStrBefore[1,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBefore[2,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} faux
\IfSubStrBefore[2,3]{\a1\a2\a3\b1\b2\b3}{\a}{\b}{vrai}{faux} vrai
\IfSubStrBefore[1,1]{\a1{\a2\a3\b1}\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBefore[1,2]{\a1{\a2\a3\b1}\b2\b3}{3}{\b}{vrai}{faux} vrai

```

## Le test IfStrBehind

```

\noexploregroups
\IfSubStrBehind[2,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBehind[3,1]{\a1\a2\a3\b1\b2\b3}{\a}{\b}{vrai}{faux} faux
\IfSubStrBehind[1,1]{\a1\a2\a3\b1\b2\b3}{\b}{3}{vrai}{faux} vrai
\IfSubStrBehind[2,1]{\a1{\a2\a3\b1}\b2\b3}{\b}{3}{vrai}{faux} faux
\IfSubStrBehind[1,1]{\a1{\a2\a3\b1}\b2\b3}{3}{\b}{vrai}{faux} vrai
\exploregroups
\IfSubStrBehind[2,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBehind[3,1]{\a1\a2\a3\b1\b2\b3}{\a}{\b}{vrai}{faux} faux
\IfSubStrBehind[1,1]{\a1\a2\a3\b1\b2\b3}{\b}{3}{vrai}{faux} vrai
\IfSubStrBehind[2,1]{\a1{\a2\a3\b1}\b2\b3}{\b}{3}{vrai}{faux} vrai
\IfSubStrBehind[1,1]{\a1{\a2\a3\b1}\b2\b3}{3}{\b}{vrai}{faux} faux

```

## Le test IfInteger

Dans les exemples ci-dessous, on examine la différence de comportement de la macro `\IfInteger` selon les modes de développement des arguments.

```

\def\nbA{-12}\def\nbB{498}
\def\nbAA{\nbA}\def\nbBB{\nbB}
\fullexpandarg
\IfInteger{\nbA}{vrai}{faux} faux
\IfInteger{\nbA5\nbA}{vrai}{faux} faux
\IfInteger{\nbA6\nbB}{vrai}{faux} faux
\IfInteger{\nbAA7\nbBB}{vrai}{faux} faux
\expandarg

```

```

\IfInteger{\nbA}{vrai}{faux} faux
\IfInteger{\nbA5\nbA}{vrai}{faux} faux
\IfInteger{\nbA6\nbB}{vrai}{faux} faux
\IfInteger{\nbAA7\nbBB}{vrai}{faux} faux

\noexpandarg
\IfInteger{\nbA}{vrai}{faux} faux
\IfInteger{\nbA5\nbA}{vrai}{faux} faux
\IfInteger{\nbA6\nbB}{vrai}{faux} faux
\IfInteger{\nbAA7\nbBB}{vrai}{faux} faux

```

## Le test IfDecimal

Dans les exemples ci-dessous, on examine la différence de comportement de la macro `\IfDecimal` selon les modes de développement des arguments.

```

\def\nbA{-12}\def\nbB{498}
\def\nbAA{\nbA}\def\nbBB{\nbB}

\fullexpandarg
\IfDecimal{\nbA,\nbB}{vrai}{faux} faux
\IfDecimal{\nbAA.\nbB}{vrai}{faux} faux
\IfDecimal{\nbB,777}{vrai}{faux} faux
\IfDecimal{3\nbB,777}{vrai}{faux} faux
\IfDecimal{\nbB,\nbB}{vrai}{faux} faux

\expandarg
\IfDecimal{\nbA,\nbB}{vrai}{faux} faux
\IfDecimal{\nbAA.\nbB}{vrai}{faux} faux
\IfDecimal{\nbB,777}{vrai}{faux} faux
\IfDecimal{3\nbB,777}{vrai}{faux} faux
\IfDecimal{\nbB,\nbB}{vrai}{faux} faux

\noexpandarg
\IfDecimal{\nbA,\nbB}{vrai}{faux} faux
\IfDecimal{\nbAA.\nbB}{vrai}{faux} faux
\IfDecimal{\nbB,777}{vrai}{faux} faux
\IfDecimal{3\nbB,777}{vrai}{faux} faux
\IfDecimal{\nbB,\nbB}{vrai}{faux} faux

```

## La macro StrBefore

```

\noexploregroups
\StrBefore[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd} 1\ a 2

\StrBefore[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd} 1\ a 2\ a 3{4\ a 5{6\ a 7}8\ a }9

\StrBefore[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd}

\StrBefore[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd}

\StrBefore[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd}

\exploregroups
\StrBefore[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd} 1\ a 2

\StrBefore[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}[\cmd]
\detokenize\expandafter{\cmd} 4

```

```

\StrBefore[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 6
\StrBefore[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 4\ a 5{6\ a 7}8
\StrBefore[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 1\ a 2\ a 3{4\ a 5{6\ a 7}8\ a }9

```

## La macro StrBehind

```

\noexploregroups
\StrBehind[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 3{4\ a 5{6\ a 7}8\ a }9\ a 0
\StrBehind[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 0
\StrBehind[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd}
\StrBehind[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd}
\StrBehind[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd}

\exploregroups
\StrBehind[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 3{4\ a 5{6\ a 7}8\ a }9\ a 0
\StrBehind[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 5{6\ a 7}8\ a
\StrBehind[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 7
\StrBehind[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd}
\StrBehind[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 0

```

## La macro StrBetween

La commande `\StrBetween` opère en mode `\noexploregroups`, quelque soit le mode d'exploration en cours.

```

\StrBetween[1,3]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{2}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} {3\ a 4}5
\StrBetween[2,3]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{\ a}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 2{3\ a 4}5
\StrBetween[1,3]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{3}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd}
\StrBetween[2,4]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{\ a}{\ a}{\ cmd}
\detokenize\expandafter{\ cmd} 2{3\ a 4}5\ a 6{7\ a 8}9

```

## La macro StrSubstitute

```

\noexploregroups
\StrSubstitute{\ a1{2\ a{3\ a}4\ a}\ a5\ a}{\ a}{\ X}{\ cmd}
\detokenize\expandafter{\ cmd} \ X 1{2\ a {3\ a }4\ a }\ X 5\ X
\StrSubstitute[2]{\ a1{2\ a{3\ a}4\ a}\ a5\ a}{\ a}{\ X}{\ cmd}
\detokenize\expandafter{\ cmd} \ X 1{2\ a {3\ a }4\ a }\ X 5\ a
\StrSubstitute{\ a1{2\ a{3\ a}4\ a}\ a5\ a}{2}{\ X}{\ cmd}
\detokenize\expandafter{\ cmd} \ a 1{2\ a {3\ a }4\ a }\ a 5\ a

```

<code>\StrSubstitute{\a1{2\a{3\}4\}\a5\}{\{3\}\{XXX}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {3\}4\}\a 5\ a</code>
<code>\StrSubstitute{\a1{2\a{3\}4\}\a5\}{3\}\{XXX}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {3\}4\}\a 5\ a</code>
<code>\StrSubstitute{a1{b1\bgroup c1}\egroup d1}{1}\{X}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>aX{b1\bgroup c1}\egroup dX</code>
	<code>\exploregroups</code>	
<code>\StrSubstitute{\a1{2\a{3\}4\}\a5\}{\}\{X}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\X 1{2\X {3\X }4\X }\X 5\X</code>
<code>\StrSubstitute[2]{\a1{2\a{3\}4\}\a5\}{\}\{X}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\X 1{2\X {3\}4\}\a 5\ a</code>
<code>\StrSubstitute{\a1{2\a{3\}4\}\a5\}{2}\{X}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{X\ a {3\}4\}\a 5\ a</code>
<code>\StrSubstitute{\a1{2\a{3\}4\}\a5\}{\{3\}\{XXX}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a XXX4\}\a 5\ a</code>
<code>\StrSubstitute{\a1{2\a{3\}4\}\a5\}{3\}\{XXX}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {XXX}4\}\a 5\ a</code>
<code>\StrSubstitute{a1{b1\bgroup c1}\egroup d1}{1}\{X}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>aX{bX\bgroup cX}\egroup dX</code>

## La macro StrDel

	<code>\noexploregroups</code>	
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>1{2\ a {3\}4\}\a 5</code>
<code>\StrDel[2]{\a1{2\a{3\}4\}\a5\}{\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>1{2\ a {3\}4\}\a 5\ a</code>
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{2}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {3\}4\}\a 5\ a</code>
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{\{3\}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {3\}4\}\a 5\ a</code>
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{3\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {3\}4\}\a 5\ a</code>
	<code>\exploregroups</code>	
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>1{2{3}4}5</code>
<code>\StrDel[2]{\a1{2\a{3\}4\}\a5\}{\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>1{2{3\ a }4\}\a 5\ a</code>
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{2}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{\ a {3\}4\}\a 5\ a</code>
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{\{3\}\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a 4\}\a 5\ a</code>
<code>\StrDel{\a1{2\a{3\}4\}\a5\}{3\}\cmd}</code>	<code>\detokenize\expandafter{\cmd}</code>	<code>\a 1{2\ a {}4\}\a 5\ a</code>

## La macro StrLen

	<code>\noexploregroups</code>	
<code>\StrLen{a1{a2}{\}\b}{a3}a4}</code>	<code>\exploregroups</code>	7
<code>\StrLen{a1{a2}{\}\b}{a3}a4}</code>		10

## la macro StrSplit

```
\noexploregroups
\StrSplit{\a\b{c\d}\e}\f\g{2}\xx\yy
\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\# #\a {b {c d }e }# #\f \g #
\StrSplit{\a\b{c\d}\e}\f\g{3}\xx\yy
\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\# #\a {b {c d }e }\f # #\g #
\exploregroups
\StrSplit{\a\b{c\d}\e}\f\g{2}\xx\yy
\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\# #\b # #\{c d }e #
\StrSplit{\a\b{c\d}\e}\f\g{3}\xx\yy
\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\# #\c # #\d #
```

## la macro StrMid

La commande \StrMid opère en mode \noexploregroups, quelque soit le mode d'exploration en cours.

```
\StrMid{\a\b{c\d}\e}\f\g\h{2}{6}[\cmd]
\detokenize\expandafter{\cmd} \b {c d }e \f \g
\StrMid{\a\b{c\d}\e}\f\g\h{3}{4}[\cmd]
\detokenize\expandafter{\cmd} {c d }e
```

## La macro StrGobbleLeft

```
\noexploregroups
\StrGobbleLeft{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \f
\exploregroups
\StrGobbleLeft{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \d \e
```

## La macro StrGobbleRight

```
\noexploregroups
\StrGobbleRight{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \a
\exploregroups
\StrGobbleRight{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \c
```

## La macro StrLeft

```
\noexploregroups
\StrLeft{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \a \b {c d \e }
\exploregroups
\StrLeft{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \c
```

## La macro StrRight

```
\noexploregroups
\StrRight{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \b {c d \e }\f
\exploregroups
\StrRight{\a\b{c\d}\e}\f{3}[\cmd]
\detokenize\expandafter{\cmd} \d \e
```

## la macro StrChar

```
\noexploregroups
```



```

\StrChar{\a\b{\c\d\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} {\c \d \e }
\exploregroups
\StrChar{\a\b{\c\d\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \c

```

## La macro StrCount

```

\noexploregroups
\StrCount{\a1{\a2{\a3\4}\a5}\a6\7}{\a} 3
\StrCount{\a1{\a2{\a3\4}\a5}\a6\7}{2} 0
\exploregroups
\StrCount{\a1{\a2{\a3\4}\a5}\a6\7}{\a} 7
\StrCount{\a1{\a2{\a3\4}\a5}\a6\7}{2} 1

```

## La macro StrPosition

```

\noexploregroups
\StrPosition[3]{\a0\1{\a2\3\4}\a5\6}{\a} 6
\StrPosition[4]{\a0\1{\a3\4\5}\a6\7}{\a} 8
\StrPosition[1]{\a0\1{\a2\3\4}\a5\6}{2} 0
\exploregroups
\StrPosition[3]{\a0\1{\a2\3\4}\a5\6}{\a} 1
\StrPosition[4]{\a0\1{\a2\3\4}\a5\6}{\a} 2
\StrPosition[1]{\a0\1{\a2\3\4}\a5\6}{2} 1

```

## La macro StrCompare

La commande \StrCompare n'est pas affectée par le mode d'exploration.

```

\comparenormal
\StrCompare{\a{\b1}\c2}{\a\b1\c2} 2
\StrCompare{{1\2}3}{{1\2}3} 0
\StrCompare{{1\2}3}{1\23} 1
\StrCompare{\a{\b\c}}{\a{\b\c}\d} 0
\StrCompare{{\a}\b}{\a\b} 1
\comparestrict
\StrCompare{\a{\b1}\c2}{\a\b1\c2} 2
\StrCompare{{1\2}3}{{1\2}3} 0
\StrCompare{{1\2}3}{1\23} 1
\StrCompare{\a{\b\c}}{\a{\b\c}\d} 3
\StrCompare{{\a}\b}{\a\b} 1

```

## La macro StrRemoveBraces

```

\noexploregroups
\StrRemoveBraces{\a1{\b2{\c3{\d4}}}\e5}[\cmd]
\detokenize\expandafter{\cmd} \a 1\b 2{\c 3{\d 4}}\e 5
\exploregroups
\StrRemoveBraces{\a1{\b2{\c3{\d4}}}\e5}[\cmd]
\detokenize\expandafter{\cmd} \a 1\b 2\c 3\d 4\e 5

```